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1. (Amended) A method for modifying a virtual object in a haptic virtual environment, comprising:
 - determining a virtual tool comprising a plurality of discrete points for use by the user in the haptic virtual environment;
 - selecting a modification mode other than a surface deformation for the virtual tool;
 - sensing a location of a user in real space;
 - determining locations of the plurality of discrete points of the virtual tool relative to a location of the virtual object;
 - calculating an interaction force between the virtual tool and the virtual object based on the locations of the plurality of discrete points of the virtual tool and the location of the virtual object;
 - producing a modified virtual object by modifying the virtual object based on the modification mode, the locations of the plurality of discrete points of the virtual tool and the location of the virtual object; and
 - outputting the modified virtual object.